INTERNATIONAL MARKETS: SEIZING THE OPPORTUNITY

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Chairman, before I get started on my presentation I would like to congratulate the US Department of Energy for having the considerable foresight in establishing the clean coal demonstration programme when it did.

While many speakers over the past few days have highlighted the challenges of bringing forward the take-up of clean coal technologies, without the US Department of Energy Clean Coal Demonstration Programme the challenge would be near impossible to reach and the long term consequences on the environment substantial. In addition the guidance and inspiration it has given to more modest clean coal programmes overseas cannot be underestimated. I know from personal experience that the UK Department of Trade and Industry and UK industry has found our contacts with the programme invaluable.

To start off my analysis of the presentations, I would like to highlight some of the key facts and figures mentioned in a number of papers this week, together with a summary of the perceived market barriers.

Firstly, a number of presenters have referred to the expected continued rise in coal demand for power generation and other uses for the foreseeable future - certainly well into the 21 century. Forecasts by the International Energy Agency highlighted in John Ferriter's presentation on Wednesday indicate a substantial increase in world coal demand to 2010. Rising from around 3.5 billion tones at present to over 5.3 billion tones by 2010. As we heard from David Gallasby yesterday, most of this increase is in Asia, where coal demand in China alone is set to increase from 1 billion tonnes to over 2 billion tonnes and in India from 250 million tonnes to 500 million tones by 2010. These figures demonstrate the substantial economic growth expected in Asia over the next few years and perhaps indicates where much of our effort to promote clean coal technology should really be focused.

There is a clear consensus on what the barriers to bringing forward any significant amount of advanced clean coal technology at the present time. These are:

- uncertainty associated with a deregulated electricity industry and a highly competitive market place

- increased availability and competition from natural gas
- in many countries the electricity utilities have only just been privatised and are particularly risk adverse
- lack of commercially demonstrated performance and perceived cost competitiveness, particularly for IGCC and PFBC
- the public and political perception about coal
- the concern about even tighter environmental constraints
- the financial constraints and technology risk premiums

A number of presenters have touched on the issue of coal being perceived to be a “problem fuel” associated with global warming and local pollution acid rain and particulates. This is despite the wealth of publications and information about the benefits of clean coal technologies produced over the past few years by various public and private agencies in the US and overseas.

The increase in coal use should not be seen only as an environmental problem to solve, but a major market opportunity for exporters of technology, components and know-how - in both the United States and internationally. A recent study by the IEA Working Party on Fossil Fuels has shown that the potential market for clean coal technologies exceeds $800 billion over the next few years to 2010. 90% of which is related to power generation. This $800 billion forecast is close to the trillion dollar figure quoted by Mrs Patricia Godley on Wednesday.

Seizing this huge market opportunity is the real challenge. If we are successful (I say we for this market is large enough for everyone to have a share),it would make a substantial difference to the environment of the certain increase in coal use over the next few decades.

It is also important here to understand that clean coal technologies can also mean “state of the art” conventional plant. Such plants offer substantial improvements in both efficiency and environmental performance when compared to many existing plants in both the United States and the rest of the world.

We should not necessarily be too pessimistic about not being able to speed up the deployment of advanced clean coal technologies as fast as some speakers this week would like. In my view the worst possible outcome for advanced clean coal technologies such as IGCC is if a technology is sold to a utility or IPP on the basis of certain performance criteria and it fails to deliver. While this is obviously a major problem both financially and technically for the technology supplier, it is also immensely damaging to other clean coal technologies approaching commercialisation. As Larry Papay of Bectel mentioned during his luncheon address on Wednesday, some technologies will inevitably fall by the wayside; what we must not do is make some of them fall off the road because we pushed them to quickly.

The Coal Industry Advisory Board study which John Wootten outlined on Thursday provides an invaluable status report on where we are with deploying clean coal technologies. In particular, it set out the policies and measures that might be deployed to overcome some of the barriers.

The presentations from John Wootten and David Gallasby, did indicate to me a considerable interest by utilities to take up more advanced clean coal technologies if manufacturers could deliver on price, availability, and reliability etc. As Ian Torrens presentation highlighted, the fact we have 350 supercritical units operating or planned throughout the world now, and that some utilities are prepared to take the risk and become involved in first of a kind plant both here in the United States and in Europe, Japan etc., albeit with some public funding in one form or the other, is very encouraging. Clearly it would be immensely beneficial both to the environment and to industry if the more advanced technologies could be taken up commercially at a faster pace both at home and overseas.

Having listened to, and read the papers presented on Thursday, I believe there are a number of positive things we can do to smooth the path of encouraging the deployment of clean coal technologies over the next few years. It will require careful planning, and a willingness of all those with an interest in seeing clean coal technologies adopted as the energy technologies of choice in the 21st century, to work together much more closely than at present. Many of the activities could turn out to involve little if any additional work and may even lead overall to less effort if there is a commitment to work together.

Firstly, we need to be much more focused and concentrate effort in a few key growth areas such as China and India. The UK for example is focusing its export activities on clean coal technology on India and just one or two provinces in China.

Secondly, there is growing evidence that a number of countries have been confused by the conflicting information and advice they have received about clean coal technologies. This confusion and lack of knowledge also persists in those countries leading technology development. I have met for example a number of senior energy company executives in the United States who were unaware of the breadth of the US Clean Coal Demonstration Programme. Mrs Patricia Godley has quite rightly emphasised the importance of educating key players in the United States together with the general public.

There is always a danger we produce information only for ourselves, It is vital we remember key decision makers at home and abroad and the public have their own, often very specific information requirements. The importance of preparing appropriate information and disseminating it effectively was emphasised by John Wootten in setting out the CIAB's recommendations on policies and measures to overcome barriers.

These CIAB recommendations' emphases the importance of the private sector and government working together to disseminate technical and economic information about clean coal technologies including supercritical and ultra supercritical technology.

I would strongly endorse this but recommend this is done under the auspices of the International Energy Agency as part of the World Bank clean coal initiative. I would also recommend we make particular use of the IEA Clean coal Centre (formerly known as IEA Coal Research) for this work.

Thirdly, there is a need for a consensus on what are the main barriers to technology deployment within individual countries and prepare a strategy to overcome them collectively. Again, this could form part of an international collaborative activity under the auspices of the IEA.. It cannot be effective and efficient to try and open up new markets to deployment and reduce tariff charges etc., in a random way as currently undertaken.

Three final points. There are clearly no easy solutions to overcome some of the perceived impacts of deregulation, privatisation and competition to the take up of clean coal technologies. As David Gallasby reminded us on Thursday, what is most important is market pull, assisted to some extent by improved information dissemination on benefits of clean coal technologies.

The US Department of Energy may wish to consider for its next conference to have a specific session devoted to reporting progress on overseas demonstration projects. This would allow within the scope of one conference for us to see the "state of the art of world development of clean coal technologies., and further demonstrate the commitment of the United States, Europe and Japan etc., to work together to enhance information dissemination.

Finally, accepting market pull is essential to the future deployment of clean coal technologies, the US Department of Energy should consider inviting representatives from the key market areas - decision makers, technical and financial advisers etc. to tell us what information they require with respect to clean coal technologies. Such action should greatly assist the US Department of Energy in focusing its future activities more effectively.